

REMARKS

Claims 1, 3, 5 – 14, and 16 - 25 are now pending in the application. The Examiner is respectfully requested to reconsider and withdraw the rejection(s) in view of the amendments and remarks contained herein.

REJECTION UNDER 35 U.S.C. § 103

Claims 1, 3, 5 – 14, and 16-25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Takahashi et al. (Takahashi) (U.S. Pat. No. 6,266,119) in view of Ishikawa et al. (Ishikawa) (U.S. Pat. No. 5,258,866). This rejection is respectfully traversed.

The Examiner alleges that Takahashi discloses the nature of the alignment problem, the dimension change due to process heating, and decreasing the error by finally adjusting a size of a mask used in the electrode pattern formation so that the pitches become substantially equal to each other during the bonding process. Although Takahashi does not explicitly disclose the mount base member having a linear thermal expansion coefficient larger than a linear thermal expansion coefficient of the substrate, the Examiner further alleges that Ishikawa teaches the use of a flexible circuit board with a pitch $p=P/(1+\alpha)$ having a linear thermal expansion coefficient that is larger than a linear thermal expansion coefficient of the glass substrate by an amount related to α . As such, the Examiner alleges that it would have been obvious to combine the teachings of Ishikawa with those of Takahashi to ensure electrode terminals of the flexible circuit board and terminals of the glass substrate are connected to each other correctly.

Claims 1 and 9, however, have been amended to call for the plurality of first alignment marks to be superimposed over a plurality of second alignment marks. This is depicted, for example, in Figure 7(a) of the application where the claimed method superimposes the alignment

marks 10 and 15 over one another. In contrast, Takahashi utilizes alignment marks A1, A2, and B1, B2 which are opposed to each other. More specifically, referring to Figure 6 of Takahashi, members 36 and 32 are separated from each other by a gap. As such, the alignment marks A1, A2, and B1, B2 are not superimposed over one another, as claimed. The claimed method, therefore, is different from the proposed combination of Takahashi and Ishikawa.

Further, MPEP 2143 mandates that in order to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

Applicant respectfully asserts that Takahashi contains no suggestion or motivation to modify its teachings with those of Ishikawa. The claimed invention calls for the first terminal bank to be directly connected to the second terminal bank. Takahashi, however, teaches the use of a connection electrode 37 to connect its terminal banks. In view of this teaching of a connection electrode, Takahashi does not suggest or provide motivation to one skilled in the art to look to Ishikawa for a teaching of a flexible circuit board with a pitch $p=P/(1+\alpha)$. Since there is no suggestion or motivation to look to Ishikawa, the proposed modification of Takahashi with the teachings of Ishikawa is improper and, therefore, not obvious.

Moreover, Applicant respectfully asserts that the combination of references does not teach or suggest all the claim limitations. That is, the claimed invention calls for the plurality of second alignment marks to be spaced mutually more apart than the spacing of the first alignment marks after thermal bonding. Neither Takahashi nor Ishikawa teach such a limitation. That is,

Ishikawa is completely silent with respect to alignment marks and Takahashi merely teaches the use of alignment marks. There is no suggestion, however, that the second alignment marks are to be spaced mutually more apart than the spacing of the first alignment marks as called for in claims 12, 14, and 23-25. As such, Applicant respectfully asserts that the Examiner has not established a prima facie case of obviousness and respectfully requests that the rejection under 35 U.S.C. § 103(a) be reconsidered and withdrawn.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

Dated:

July 3, 2003

HARNES, DICKEY & PIERCE, P.L.C.
P.O. Box 828
Bloomfield Hills, Michigan 48303
(248) 641-1600

GGs/BEW/JAH

By:


G. Gregory Schivley, Reg. No. 27,382
Bryant E. Wade, Reg. No. 40,344